DaySequerra



AM-FM HD Receiver



M4.25 User Manual

Welcome

Thanks for purchasing the DaySequerra M4.2S AM-FM Digital Radio Receiver. We design and build all of our DaySequerra products to be completely reliable and easy to use, so you can concentrate on producing great sounding broadcasts, not struggling with complicated equipment or difficult to use product manuals.

While the M4.2S has been designed to be straightforward to use, we do suggest that you spend a few minutes familiarizing yourself with the features and operational functions that are contained in this manual.

DaySequerra has been building broadcast quality products since 1989. The technology developed for the M4.2S, and all of our products, has evolved through a process of user feedback, extensive listening, field-testing and careful refinement.

In the event that you encounter any technical or operational difficulties with this or any DaySequerra product, please feel free to contact us at 856-719-9900. Our office hours are from 9 to 5 ET, Monday through Friday. Or you can email your questions to: **info@daysequerra.com**.

Also, please remember to visit our website **www.daysequerra.com** for warranty registration and the latest DaySequerra product information.

We have worked hard to ensure that your DaySequerra M4.2S HD Radio Receiver will reliably serve as a flawless link between the transmitter and your monitoring facility, or as the primary broadcast reference source in your studio.

We sincerely hope our products help you achieve a new level of excellence in your work!

David V. Day

and the DaySequerra Team

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M4.2S - Features

- Robust 24/7 performance stays locked to AM-FM analog, HD-1 or selected multicast stream during power or I2E interruptions; does not automatically revert to analog!
- XLR balanced analog outputs +4 dBm @ 100% modulation; high-performance headphone monitor delivering greater than 1W into 8-ohm
- M4.2S TimeLock™ upgrade provides 24/7 measurement of MPS and HD-1 audio streams time-alignment; front panel LED and LCD, and Remote Dashboard displays; rear panel alarm tally-email notification for out-oftolerance conditions - order model M4.2S TimeLock™

Important Safety Information

- Indoor use only. Not for use in wet or damp environments.
- Maximum Relative Humidity: <80%
- Class I Equipment (grounded type)
- Electrical rating: 100-120/220-240V~50-60Hz 18W
- Fuse Rating: 2A 250V 20MM
- AC Mains supply voltage fluctuations are not to exceed +10% of the nominal voltage
- Operations temperature range -40°C to 70°C
- Maximum altitude: 3000m (9843ft)
- Equipment suitable for continuous operation
- Weight: 5.4kg (12lbs) equipment only; 8.2kg (18lbs) shipping

Important Note: Please connect your M4.2S to an uninterruptible power supply (UPS) to provide other protection against power surges and brownouts.

Service Information

The DaySequerra M4.2S contains no user serviceable components inside the unit. Please contact DaySequerra for repair and upgrade information. In the event that your unit needs to be returned to the factory, contact us for a return authorization number. The monitor ID and firmware version is momentarily displayed at start-up for your convenience. Please visit www.daysequerra.com and register your new M4.2S so we can keep you informed of the latest hardware and software updates.

Introduction

DaySequerra's new M4.2S AM-FM Digital Radio Receiver is the most capable next-generation HD Radio™ platform available today.

With the M4.2S you can monitor audio and data from your analog and HD Radio broadcasts including FM multicast channels HD-2 through HD-8. The M4.2S has no AUTO-Blend function so it stays locked to the stream you've selected even if the broadcast or your AC power is interrupted. Hear your HD Radio time-alignment using the M4.2S built-in Split-Mode. With the optional TimeLock™ Monitor, the M4.2S will even send an email if your MPS and HD-1 streams are out of time-alignment. The Remote Dashboard webserver simplifies your under 3-minute setup and provides total remote control of the M4.2S using any browser on your Ethernet network. Plug and Play

Please read this manual thoroughly before operating your M4.2S.

M4.2S Key Features

- Robust 24/7 performance stays locked to AM-FM analog, HD-1 or selected multicast stream during power or I2E interruptions; does not automatically revert to analog!
- Bright LCD front panel display of RBDS and HD Radio PAD, along with network and alarm conditions
- Full-time AES-3 Professional digital audio output even when tuned to non-HD signal
- XLR balanced analog outputs +4 dBm @ 100% modulation; Split-Mode so you can hear your HD Radio time-alignment
- High performance headphone monitor delivering greater than 1W into 8-ohm
- Remote Dashboard provides total remote control and display of RBDS and all HD Radio PAD/SIS, network and alarm conditions along with audio level, digital audio quality and carrier quality indications
- Webserver compatible with any browser on your Ethernet network
- Rear panel alarm tallies for loss of Audio, Carrier, and OFDM Lock and Multicast Loss
- Optional TimeLock™ Monitor for time-correlation of MPS and HD-1 streams
- Alarms can be emailed to your phone
- Remote reset via rear panel GPI
- Use your wireless router for remote control using your Android® or iPhone®
- Also available with RCA outputs order model M4.2S-RCA

M4.2S Technical Specifications

RF Tuning Range	AM: 520 kHz to 1720 kHz in 9 KHz or 10 kHz increments FM: 87.9 MHz to 108.1 MHz in 100 KHz or 200 kHz increments
RF Usable Sensitivity	AM: <20 dBf (-100 dBm) for SNR -20 dB referenced to 30% modulation FM: <15 dBf (-100 dBm) for SNR -30 dB referenced to 100% modulation
RF Input F-Type 75 ohm	AM-FM: -55 dBm Nominal: -20 dBm Maximum
IF Rejection	AM: > 100 dB for SNR -20 dB FM" > 100 dB for SNR -30 dB
AF Bandwidth	AM: +/- 1 dB, 40 Hz to 15 kHz FM: +/- 1 dB, 20 Hz to 20 kHz
FM De-emphasis	75 uSec
Analog Audio Outputs – Left/Right Balanced XLR	+4 dBm into 600 ohm at 100% modulation
Digital Audio Output	AES-3 Professional, 110Ω transformer-isolated on XLR connector 0 dBFS <.005% THD+N using HD Radio™ input
HD Radio Hybrid Acquisition	<4.5 seconds
HD Radio Split Mode	MPS Left (on R output) and HD-1 (on L output) on Analog, Digital and Headphone audio
Alarm Notification	Rear panel tallies, front panel indications and email for loss of Audio, Carrier, and OFDM HD Radio Lock
RBDS Data	PI (Call Letters), PS (Program Service), PTY (Program Type), and RT (Radio Text)
HD Radio PAD and SIS Data	SIG, SIS, Extended SIS, AAAS, and LOT; PAD including station long and short name, program type, song file artist, album, genre and comment fields
AC Power	Auto-sensing 85-264VAC, 47-63Hz input
Environmental	Operating Temperature: +41 to +105 F (+5 to +40 C) Storage Temperature: -13 to +140 F (-25 to +60 C) Relative Humidity: Maximum 85%, non-condensing
Dimensions	1 RU EMI-hardended: 19" (482mm) W x 14" (355mm) D x 1.75" (44mm) H
Shipping Weight	12 lbs. (5.4 kg)
Warranty	Three years, limited parts and labor
M4.2S Options	M4.2S RCA – Unbalanced analog and digital audio outputs on RCA connectors installed in place of standard XLR Connectors. M4.2S TimeLock Monitor – Provides time-alignment correlation for MPS and HD-1 streams; rear panel AUDIO ALARM tally and email notifications. Field-installable upgrade.

Unpacking and Installing the M4.2S

Immediately upon receiving your M4.2S, please make a careful inspection for any shipping damage. If damage is found or suspected, please notify the carrier at once and then contact your dealer. The DaySequerra M4.2S is shipped in one carton, which contains: the M4.2S unit, an AC power cable, a $Torx^{TM}$ T-8 L-key and this User Manual.

We strongly encourage you to save the shipping carton and shipping materials supplied with your M4.2S. They are specially designed to properly protect your M4.2S, and in the event that you need to return it for service, only these OEM shipping materials can ensure its safe return to our factory.

We provide a limited 3-year warranty on all of our products, but if you don't register your unit, it's hard for us to contact you when software updates become available. So please take a few minutes to complete the warranty registration form on our web site, www.daysequerra.com. Thank you!

Rack Mount Installation. The M4.2S chassis has four rack mounting holes in its chassis and has been designed to fit in a 19" standard 1RU space. Plastic 'finishing' washers are recommended to protect the painted finish around the mounting holes.

Power Connection. The AC power cable supplied with the M4.2S must be connected from the M4.2S's IEC320 power entry module to an AC mains outlet with a functional earth ground connection. The M4.2S has been set at the factory to operate at 120VAC unless otherwise specified on the shipping carton. The M4.2S export version is configured for 240VAC operation. **Please connect your M4.2S to an uninterruptible power supply (UPS) to protect against power surges and brownouts.**

Antenna Input Connections. Separate 75ohm F-type connector is provided on the M4.2S rear panel for dedicated AM and FM antennas

Audio Output Connections. Analog audio left and right outputs are on rear-panel XLR connectors with pin 1 GND, pin 2 + and pin 3 -. The digital audio output is transformer-isolated in S/PDIF format on a rear-panel XLR connector with pin 1 GND, pin 2 XFMR and pin 3 XFMR. The M4.2S digital audio output is 5.1 surround capable.

Ethernet Connection - The M4.2S Ethernet Port offers the use of DaySequerra's Webserver by connecting the M4.2s to any networked computer with internet access. The use of crossover cables can be used in areas where a network connection is not possible. More information on the Webserver can be found at the end of this manual. The Ethernet port with the aid of the webserver will keep the M4.2S up to date on all Firmware upgrades by checking, downloading and installing with the click of the 'Check Firmware' button on the webserver. (An internet connection must me available for 'Firmware Upgrade. to work. UPON RECEIVING THE UNIT IT IS ENCOURAGED TO 'CHECK FIRMWARE' FROM THE WEBSERVER TO BE SURE YOUR M4.2S IS USING THE MOST RECENT FIRMWARE AVAILABLE.

Navigation

The M4.2S has a 3-button user interface. From the start 'HomeScreen' press the center button once. An arrow will appear next to the frequency. Use the UP/DN arrow button to toggle the Arrow on the LCD around the different fields on the HomeScreen. Press the Center button to select a field to change. The arrow will start to flash indicating that the UP/DN arrows are available to change the value of the field. Press the Center button to save and exit.

M4.2S Operating Description - Controls and Indicators

Front Panel



Figure 1.

Status

- Alarms illuminated red when an alarm is enabled and flashes red every second when an alarm condition is active.
- HD Locked Blue LED illuminates when tuner has acquired OFDM (orthogonal frequency division multiplexing) portion of an HD RadioTM signal and digital carrier S/N > 58dB/Hz, thereby permitting HD RadioTM digital audio to be valid. HD is displayed in upper right hand corner of VFD when tuner has acquired OFDM portion of an HD RadioTM signal.
- **Multicast** Blue LED illuminates when tuner has acquired OFDM of an HD RadioTM signal and there is at least one multicast signal present.
- **Up Arrow** Momentary push UP from the Homescreen will enter the Headphone volume menu. Both arrows are used to increase and decrease the volume. From selection mode Press ENTER again to change a value in any a field indicating a blinking arrow ready. Use the UP and DOWN arrows to navigate/toggle through the available choices or range. UP Arrow button tunes the frequency up one increment while tuning to a new station, when held for three seconds it tunes faster at 1.5x speed. UP selects next stored preset station in PRESETS mode (no faster mode, one push per preset). Selects next item in other menus and is used for other functions as described herein. Holding the UP arrow while powering the unit on will restore factory settings.
- Down Arrow Momentary push DOWN from the Homescreen will enter the Headphone volume menu. Both arrows are used to increase and decrease the volume. From selection

mode Press ENTER again to change a value in any a field indicating a blinking arrow ready. Use the UP and DOWN arrows to navigate/toggle through the available choices or range. DOWN Arrow button tunes the frequency down one increment while tuning to a new station, when held for three seconds it tunes faster at 1.5x speed. Down selects next stored preset station in PRESETS mode (no faster mode, one push per preset). Selects next item in other menus and is used for other functions as described herein.

- Center Button Used to enter SELECTION MODE and to confirm and save that selection;
 Press and hold for 3 seconds to enter SYSTEM MENU. Press and hold for 3 seconds to exit SYSTEM MENU.
- **Headphones** Accepts any headphone or monitor that has a 3.5mm stereo mini-jack connection. Volume control is software based, from the home screen by pressing either arrow button UP/DN to enter the volume control. Press ENTER to exit and save the desired volume.

Rear Panel



Figure 2.

- RF Input F-Type 75 ohm AM-FM: -55 dBm Nominal: -20 dBm Maximum
- Analog Audio Outputs Left/Right Balanced XLR +4 dBm into 600 ohm at 100% modulation
- Digital Audio Output AES-3 Professional, 110Ω transformer-isolated on XLR connector; 0 dBFS <0.005% THD+N using HD Radio™ input
- GPI The PLM provides six dry, floating relays with outputs on a rear panel mounted DB15 connector to report selected alarm conditions, including loss of RF carrier, program audio, OFDM lock and PAD data. See the PIN out chart for details under 'ALARMS'
- The M4.2S Ethernet Port offers the use of DaySequerra's Webserver by connecting the M4.2s to any networked computer with internet access. The use of crossover cables can be used in areas where a network connection is not possible. More information on the Webserver can be found at the end of this manual. The Ethernet port with the aid of the webserver will keep the M4.2S up to date on all Firmware upgrades by checking, downloading and installing with the click of the 'Check Firmware' button on the webserver. (A network internet connection must be available to successfully upgrade the firmware.)
- AC Power Auto-sensing 85-264VAC, 47-63Hz input.
- The Power (Rocker) switch is located on the rear panel of the M4.2S; when switched on the unit model number will be displayed on the LCD.

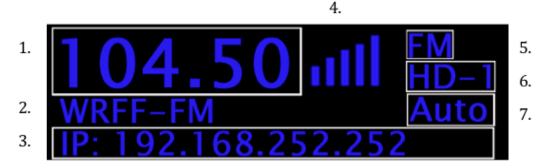


Figure 3.

- 1. Tuner Frequency Selects manual AM and FM tuning with UP and DN controls
- 2. Station Call Letters Displays the station call letters with the Band
- **3. IP / PAD & RBDS Data –** Toggles between a static IP address and decoded RBDS from analog broadcasts and PAD data from an HD RadioTM broadcasts for display on the bottom of the LCD. This field also displays active alarm details, which override IP/PAD/RBDS data.
- **4. SNR Indicator –** Strength bars are displayed indicating the signal to noise ratio. (digital only)
- **5. BAND/PRESET –** AM and FM Bands are selected; 50 AM and FM including Multicast stations are available to be stored.
- **6. ST/Multicast** Displays the available multicast stations HD 1 thru HD 8. ST is displayed if HD is not available
- **7. Forcing –** Switch between Forced Auto, Digital, Analog, and Mono. By default the tuner is set to AUTO. In Forced AUTO mode, the tuner will receive an HD RadioTM digital broadcast if one is being transmitted; if not, the tuner will receive the analog broadcast.

System Menu

Press and hold the CENTER button for 3 seconds to enter the SYSTEM menu. Use the arrow buttons to navigate to the desired submenu. To EXIT this menu press the UP arrow to EXIT and press the CENTER button to exit to the Homescreen.



Figure 4.

Audio Muting - The M4.2's audio output can be set to automatically mute for received signals with signal strength less than 45dBf.

Forcing A-D Split - The FORCING control is used to select A-D SPLIT mode, functional with AM or FM HD RadioTM signals. In A-D SPLIT mode, the analog audio outputs and headphone jack provides left analog program audio in left channel and the left HD RadioTM audio program in right channel. This mode provides for audio phase matching as well as audio level and time-alignment of the HD RadioTM broadcast for the correct analog diversity delay. Default mode is off.

Alarms

Program Loss Monitor – Enabling any alarm will disable tuning, presets and band selection from the WebServer and M4.2S box User interface.

Program Loss Monitor (PLM) Connections – The PLM provides five dry, floating relays with outputs on a rear panel mounted DB15 connector to report selected alarm conditions, including loss of RF carrier, program audio, OFDM lock and PAD data. Opto-isolated inputs will be triggered by a voltage of 5VDC. The GPIO Alarm output relays are Normally Open and will close when an alarm is active. See figure 5 below for the DB15 pin-outs:

Alarm Loss of:	No Contact	Common
RF Carrier	5	10
Audio	4	9
OFDM Lock	3	8
Multicast	2	7
PAD/RBDS	1	6
Reset	14	15
Pins not used – (11, 12,	13)	

Figure 5.



Figure 6.

RF Carrier Loss

Threshold: Navigate the arrow to Threshold and press ENTER to change the Threshold. A blinking arrow will indicate the Threshold can be changed. Low, Medium and High are available to choose from. Use the arrows to toggle through the choices. Press ENTER to make a selection and return to the RF Carrier Loss menu. "LOW" option sets RF carrier loss threshold for approximately $10\mu V$ (25dBf); "MED" option sets RF carrier loss threshold for approximately $100\mu V$ (45dBf); and "HIGH" option sets RF carrier loss threshold for approximately $3K\mu V$ (75dBf).

Delay: Use the arrow buttons to select from 1 - 300 seconds of delay

Status: Use the arrows to toggle between Enabled or disabled to turn the alarm 'ON' and 'OFF'

Save: Saves all conditions and exits back to the Alarm menu.

Audio Loss (Silence Detect)

Threshold: Navigate the arrow to Threshold and press ENTER to change the Threshold. A blinking arrow will indicate the Threshold can be changed. Low, Medium and High are available to choose from. Use the arrows to toggle through the choices. Press ENTER to make a selection and return to the Audio Loss menu. "LOW" option sets audio loss threshold for approximately -60dB; "MED" option sets audio loss threshold for approximately -40dB; and "HIGH" option sets audio loss threshold for approximately -20dB.

Delay: Use the arrow buttons to select from 1 – 300 seconds of delay

Status: Use the arrows to toggle between Enabled or disabled to turn the alarm 'ON' and 'OFF'

Save: Saves all conditions and exits back to the Alarm menu.

OFDM Lock Loss

Delay: Use the arrow buttons to select from 1 – 300 seconds of delay

Status: Use the arrows to toggle between Enabled or disabled to turn the alarm 'ON' and 'OFF'

Save: Saves all conditions and exits back to the Alarm menu.

Multicast Loss

Delay: Use the arrow buttons to select from 1 – 300 seconds of delay

Status: Use the arrows to toggle between Enabled or disabled to turn the alarm 'ON' and 'OFF'

Save: Saves all conditions and exits back to the Alarm menu.



Figure 7.

PAD/RBDS Loss

Delay: Use the arrow buttons to select from 1 - 300 seconds of delay

Alarm Type: Stagnant or Present.

PAD Field: Select among Station Long and Short Name, Program Type, Song, Artist, Album, Genre,

Comments field.

RBDS Field: PI (Call Letters), PS (Program Service), PTY (Program Type) and RT (Radio Text).

Status: Use the arrows to toggle between Enabled or disabled to turn the alarm 'ON' and 'OFF'

Save: Saves all conditions and exits back to the Alarm menu.



Figure 8

Alarm Buzzer

"ON" or "OFF" option using UP and DN switches to toggle the setting. Select "ON" for audible alarm to beep during any active alarm condition and continue with alarm configuration menu; select "OFF" for audible alarm to be silent during any active alarm condition. Press ENTER to save and exit to the previous Alarm menu

Exit

Located at the top right corner of the Alarm menu is used to exit back to the previous SYSTEM menu. From Alarms menu press the UP arrow button until the arrow is to the right of EXIT on the LCD then press ENTER to exit.

FM De-Emphasis

Switch between 75µsec and 50µsec. M4.2S is set to 75µsec by default. Press ENTER after making a selection to save and EXIT to the previous menu.



Figure 9

Tune Spacing

Switches the tunes spacing for both AM and FM. FM band allows either 100 KHz or 200 KHz tune spacing. AM band allows 9 KHz or 10 KHz tune spacing.



Figure 10

Press ENTER after selecting AM or FM band or toggle the arrow to EXIT to exit to the previous menu. (Figure 10)

AM band supports 9 KHz or 10 KHz tune spacing. AM default is factory set to 10 KHz. Press ENTER after making a selection to EXIT to the previous menu

FM band supports 100 KHz or 200 KHz tune spacing. (Illustrated in figure 11.) FM default is factory set to 200 KHz. Press ENTER after making a selection to save and EXIT to the previous menu



Figure 11.

Diagnostics

A Read-Only menu that displays the SNR (Signal to Noise Ratio) in dB, BER and BLER. The selection mode arrow is defaulted to the top right corner of the menu. To Exit press ENTER. More DIAGNOSTICS details can be viewed in the Settings tab of the WebServer.



Figure 12.

Network

A Read-Only menu that displays the current status of DHCP, the static IP address, Subnet and MAC address. Navigate up to the top right corner of the menu and Press ENTER next to EXIT to return to the SYSTEM menu. More NETWORK details can be viewed



Figure 13.

DHCP is set to 'ON' by default. Disabling DHCP allows the users to manually enter an IP address, subnet and gateway IP. Exiting this menu will save and reset the M4.2S. The new manual IP address will be displayed on the LCD homescreen

About

A Read-Only menu displaying the HDRadio version, DSP version and Firmware version. The selection mode arrow is defaulted to the top right corner of the menu. To Exit press ENTER. More ABOUT details can be viewed in the Settings tab of the WebServer.

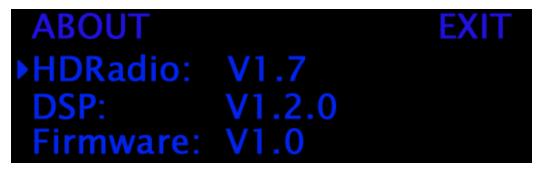


Figure 14.

WebServer

Provides full access to the M4.2S remotely via web browser.

A network connection or crossover cables is required for this feature. Crossover cables may be used when a Network connection is not available. Power ON the M4.2S and open a web browser. Type the IP address of the M4.2S in the URL to open the WebServer.

Two tabs are displayed at the top of the WebServer – Tuner and Settings

Tuner – is the main page that controls Frequency Tuning, Presets, Multicast, Forcing Analog / Digital and displays the Alarm Status of the M4.2S. When Album art and PAD/SIS/RBDS data is available it is also displayed under this tab.

Settings – Allows the user to remotely configure all of the Alarm conditions, Email and network settings. An about window displays the M4.2S Serial and Firmware number and Box ID. Firmware Upgrades can be performed by checking the 'Check for Update' box. The most recent M4.2S user manual is also available for download by checking its box.

Tuner Tab



Figure 15.

- **1. Tuner Frequency and band selection –** AM and FM band selections are available. The frequency is displayed here in a large font.
- **2. Album art display window –** Displays an the album image when available.
- **3. MPS/AUTO forcing and Multicast available** MPS forces the M4.2S into Analog Mode. AUTO is displayed in this box indicating that the M4.2S has been forced into Analog. Selecting Auto forces the M4.2S back to Digital HD if available. Multicast stations that are available will be illuminated in a bold font.
- 4. Alarm Status window Indicates any active alarms in a bold red font.
- **5. Tuning buttons –** Tune the frequency Up and Down. Holding the button for more than 3 seconds will increase the speed by a factor of 2.
- **6. Preset selection-** 50 AM and FM / Multicast stations can be stored. Holding a preset button for more than 3 seconds will save the currently tuned station in that slot.
- **7. PAD/SIS/RBDS data window –** PAD/SIS/RBDS data will scroll when available. PAD scrolls the Station Long and Short Name, Program Type, Song, Artist, Album, Genre, Comments field. RBDS scrolls the PI (Call Letters), PS (Program Service), PTY (Program Type) and RT (Radio Text). Any active alarm condition will override this data.

Settings Tab

1.

2.

3.

	ALARMS		
	Audio Loss Delay: 15 •		
	evel: Low Enable		
	IC Loss		
	Delay: 15 • Enable		
Delay. 15 Enable	relay. 15 Enable		
EMAIL SETTINGS	NETWORK SETTINGS	ABOUT	
SMTP Server:	Device Name: M4.2S	Serial: 40893	
Port: 0	DHCP: ☑	Firmware: V 1.0.30 Box ID: M4.2S	
User Name:	IP Address: 192.168.60.66	BOX 1D. 1114.23	
Sender E-mail:		PRIVATE FTP	
Password	IP Subnet: 255.255.255.0	Host:	
Receiver E-mail:	Gateway: 192.168.60.1	User:	
■ Enable Email Alaram Notification	MAC Address: 00-04-A3-A1-CC-B7	Pswd:	
Test Save	Save	Enable Private FTP Save	
Test Save	Jave	Enable Private PTP Save	
EIDMWARE LIBCRARE. Charle For He	date UNIT: (Reset	USER MANUAL: Download	
FIRMWARE UPGRADE: Check For Up	odate UNII: Reset	USER MANUAL: Download	

4.

Figure 16.

- **1. Alarm configuration –** sets the conditions for each alarm. Selecting 'ENABLE' will activate the alarm condition. Note: Enable/Disable does not represent the current state of the Alarm condition. Refreshing the web browser will display 'DISABLE' in place of 'ENABLE'.
- **2. Email Settings window** configures the M4.2S for email alerts when Alarm conditions become active. Check 'Enable Email Alarm Notification' to Enable this feature. Click 'Save' when finished. Pressing 'Test' will send a test email to be sure it is configured properly.
- **3. Firmware Upgrade button –** 'Check for Update' when selected will search for a more recent version of firmware if available on DaySequerra's FTP site. A pop-up window will tell the user if the Firmware is current or an update is available. See figure 15. If an update is available the firmware will be automatically downloaded. Once the download is complete the M4.2S will automatically power cycle to complete the update. Refreshing the web browser is recommended after an update. The new version of Firmware will be displayed in the 'ABOUT' window of the Settings tab and also in the About menu of the M4.2S Box User Interface. At this time 'Firmware Upgrade' does not automatically check for updates so it is recommended to manually check periodically.

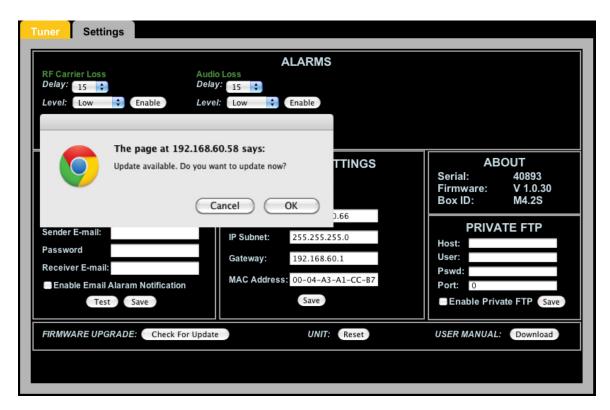


Figure 17.

A reset button performs a soft reboot of the M4.2S. The most recent version of the M4.2S user manual is available at all times by clicking 'Download'.

- **4. Network Settings window –** Configures network connections. DHCP is enabled by default. Uncheck this box to disable DHCP. IP Address, IP Subnet, Gateway are set here. MAC is read only. Checking the 'Display IP Address Periodically in the unit' will rotate the IP address in with PAD/SIS/RBDS scrolling data. After the Network settings are saved the M4.2S will reset itself so the new network settings are enabled. Selecting the Rest Unit button will remotely reset the unit.
- **5. About window –** Read only window displaying important M4.2S information: Serial #, Firmware Version, and Box ID #
- **6. Private FTP** The use of a private FTP site for future firmware upgrades is allowed. The can be accomplished by saving the FTP settings and checking the 'Enable Private FTP' box. Enabling this feature will keep the M4.2S from downloading the update directly from DaySequerra. Please notify DaySequerra so future firmware updates are sent directly to the user.

Restore Factory Settings

To restore your M4.2S unit back to the original factory settings hold the UP arrow button in while power cycling the unit. Release the UP arrow button once the power is restored to the unit. The original factory default settings will then be restored.

DaySequerra – Three Year Limited Warranty

DaySequerra warrants this product to be free from defects in materials and workmanship to its original owner for three (3) years from the date of purchase. DaySequerra will repair or replace such product or part thereof that upon inspection by DaySequerra, is found to be defective in materials or workmanship.

A Return Authorization Number must be obtained from DaySequerra in advance of return. Call DaySequerra at (856) 719-9900 to receive the number to display on the outside of your shipping carton. A written statement with the name, address, and daytime telephone number of the original owner, together with receipt from the original purchase, and a brief description of any claimed defects, must accompany all returns. Parts or product for which replacement is made shall become the property of DaySequerra. The customer shall be responsible for all costs of transportation and insurance to and from the DaySequerra factory, and all such costs will be prepaid.

DaySequerra shall use reasonable efforts to repair or replace any product covered by this limited warranty within thirty days of receipt. In the event repair or replacement shall require more than thirty days, DaySequerra shall notify the customer accordingly. DaySequerra reserves the right to replace any product that has been discontinued from its product line with a new product of comparable value and function.

This warranty shall be void in the event a covered product has been damaged, or failure is caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, or lightning, power fluctuations and other incidental or environmental conditions. Further, product malfunction or deterioration due to normal wear is not covered by this warranty.

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